



Riparian Buffer Tax Exclusion Study

April 30, 2018

Legislative Report

Summary

S.L. 2018-209, Sec. 11, Riparian Buffer Tax Exclusion Study, directs the Fiscal Research Division (FRD) to estimate the value of property statewide that is subject to certain riparian buffer rules. FRD used data provided by the NC Department of Environmental Quality and county tax assessors to estimate the taxable value of buffer land subject to the specified rules. Based on the information provided and the assumptions noted below, FRD estimates that the value of taxable buffer land is between \$11 - \$13 billion. If the land were not subject to property taxes, the total annual revenue loss to counties statewide would range from \$70 to \$85 million.

Legislative Mandate

S.L. 2018-209, Sec. 11, directs FRD to estimate the value of property subject to various riparian value rules. The legislation reads as follows:

SECTION 11.(a) The Fiscal Research Division of the North Carolina General Assembly is directed to estimate the value of property that is subject to the following riparian buffer rules and the value of property that is being used as a riparian buffer under these rules for each county within the affected river basins:

- (1) Neuse River Basin: Nutrient Sensitive Waters Management Strategy: Protection and Maintenance of Existing Riparian Buffers (15A NCAC 02B .0233).
- (2) Tar-Pamlico River Basin: Nutrient Sensitive Waters Management Strategy: Protection and Maintenance of Existing Riparian Buffers (15A NCAC 02B .0259).
- (3) Randleman Lake Water Supply Watershed: Protection and Maintenance of Existing Riparian Buffers (15A NCAC 02B .0250).
- (4) Jordan Water Supply Nutrient Strategy: Protection of Existing Riparian Buffers (15A NCAC 02B .0267).
- (5) Goose Creek Watershed Water Quality Management Plan (15A NCAC 02B .0605, 15A NCAC 02B .0606, 15A NCAC 02B .0607, 15A NCAC 02B .0608).
- (6) Mitigation Program Requirements for Protection and Maintenance of Riparian Buffers (15A NCAC 02B .0295).
- (7) Catawba River Basin: Protection and Maintenance of Existing Riparian Buffers (15A NCAC 02B .0243).

SECTION 11.(b) No later than May 1, 2018, the Fiscal Research Division shall report its estimates and analysis to the Environmental Review Commission and the Revenue Laws Study Committee.

Background and Methodology

A riparian buffer is a vegetated area that borders a body of water. North Carolina has multiple riparian buffer protection programs, and land within these buffer areas is limited to specific uses outlined in buffer rules. The riparian buffer



programs listed in the Riparian Buffer Tax Exclusion Study legislation affect 49 counties in six protected river basins or watershed areas.

Counties tax property within riparian buffers the same as they tax most other real property: based on the land's market value. Factors that enter into the market value of the property, such as any restrictions on its use, are considered by the assessors in determining the market value of the land for property tax purposes. To develop an estimate of the taxable value, FRD compared property value estimates from the Department of Environmental Quality (DEQ) and from county tax assessors.

For the seven buffer programs listed in the legislation, the buffer area extends 50 feet from the shoreline of the protected bodies of water. Buffer rules apply to surface water features shown on either 1) the most recent version of the soil survey map prepared by the Natural Resources Conservation Service of the United States Department of Agriculture or 2) the most recent version of the 1:24,000 scale (7.5 minute) quadrangle topographic maps prepared by the United States Geologic Survey (USGS). Exemptions from the buffer rules are available when an on-site determination shows that surface water shown on a map is not actually present.

For its analysis, DEQ used the USGS map to determine the bodies of water to which the seven specified buffer rules apply. DEQ then used Geographic Information Systems software to determine the land area within the 50-foot buffer. Finally, the Department used the NC Parcels datasets to estimate the value of the land area within the buffer.

Individual counties used a variety of datasets and methodologies to estimate buffer values. To identify surface waters, some counties used the same USGS map that was used by DEQ while others used maps specific to their buffer areas. Similarly, to identify parcels and parcel values, some counties used parcel maps that differed from those included in the statewide NC Parcels map used by DEQ. FRD received estimates from 34 of the 49 affected counties.

To estimate the value of taxable buffer land statewide within the specified riparian buffer programs, FRD compared DEQ's and the county's estimates for each county's buffer land. The lower end of the statewide range uses the lower of the two for each county; the higher end of the statewide range uses the higher of the two estimates for each county. This analysis produced an estimated statewide riparian buffer property value range from \$10.8 billion - \$13.2 billion. Applying each county's property tax rate results in a range of \$69.4 million - \$85.5 million in county property tax revenue associated with this property. This estimate does not include tax revenue associated with municipalities or special tax districts.

Data Considerations for DEQ Estimates

DEQ staff noted some issues with datasets used to provide their estimates. These are described below. The same issues may affect county level estimates; however, several counties have customized datasets that adjust for the problems noted.

US Geologic Survey

While the USGS topographical maps are available at a national level and provide a consistent methodology across all jurisdictions, the maps have some problems that affect their reliability. First, the hydrography mapping (i.e., mapping that shows where water is located) in several areas is outdated and may indicate water that is no longer present; this type of data problem would produce higher-than-actual buffer acreage estimates. There are also places where hydrography is under-mapped on the USGS map but shown on other maps approved for use in identifying buffers. This would result in underestimates of buffer acreage. To some extent, these problems cancel each other out at the statewide level, but they also introduce uncertainty and discrepancies between the DEQ estimates and some county estimates.



Parcel Datasets

DEQ found that in many areas the indicated shoreline on the USGS maps does not match the shoreline of the parcel dataset. In some cases, this results in a buffer of more than 50 feet applied to some parcels. In other cases, the buffer area may extend less than 50 feet into a parcel. This problem was noted more frequently in the Catawba River Basin.

Existing Uses

Some property within buffer zones is exempt from the State's riparian buffer program rules. For example, improved property and farmland are generally exempt from the rules if, when the rules were adopted, the parcels were already improved or were already used as farmland. However, sufficient data was not available statewide to allow FRD to omit those parcels from the total property value estimates. As a result, the estimated buffer values include land with existing, exempt uses.

Finally, because land values (as opposed to parcel values) were used, the estimates do not include the value of any structures located in the buffer area.

For additional information, please contact:

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